

Plaintiffs' Exhibit 132

From: Max Lin <whlin@google.com>
To: Tim Lipus <tlipus@google.com>
Sent: Thu, 21 Jun 2018 13:50:35 -0400
Subject: Re: good read: self competition of DBM on Jedi (care of Max Lin)
Cc: Nirmal Jayaram <nirmaljayaram@google.com>, Nitish Korula <nitish@google.com>, Jim Giles <jimgiles@google.com>, "davidgoodman@google.com" <davidgoodman@google.com>, Martin Pál <mpal@google.com>, Andrea Thomas <andreathomas@google.com>, Payam Shodjai <pshodjai@google.com>, Jonathan Bellack <jbellack@google.com>, Aparna Pappu <apappu@google.com>, Tobias Maurer <tmaurer@google.com>, Ali Nasiri Amini <amini@google.com>

The risk of self-competition on Jedi inventories is less because we already remove last look (DBM bid via AdX will NOT be priced by DBM bid via external exchange). However, this is not true when DBM self-competes between header bidding and AdX (DBM bid via header bidding acts as pricing floor for AdX and DBM bid via AdX can be priced by DBM's bid via header bidding). Reducing self-competition is one more reason to give up last look on AdX over header bidding.

For the options on disabling DBM bidding, I'd vote to keep at least all traffic and HB options. We are not likely to turn off 3PE completely but all traffic will cover all DRX pubs we care about for the experiment. HB is good for evaluating impact when we disable last look over HB on the AdX auction.

Another set of the experiment I discussed with some of you is to 1) disable DBM buying on 3PE, and 2) enable first pricing bidding for DBM buying on AdX and remove AdX floors. In addition to less self-competition concerns when exchanges are all competing on the first price basis, this set of experiment will address uneven inventory access due to differential pricing floors between external exchanges and AdX. This experiment will give us a glimpse if we can drive the incrementality to minimum.

- Max Lin

On Thu, Jun 21, 2018 at 1:03 PM Tim Lipus <tlipus@google.com> wrote:

This code was deleted as part of the experiment flag cleanup. It was fairly recent so hopefully not too hard to put back, but I'll have to do that and then wait for a release.

I'll read through the thread but can someone comment on the specific setup we want?

Previously we had options to disable DBM bidding on open-auction for:

- all traffic
 - HB
 - a specified list of pub ids
 - a specified list of web_property(i.e. exchange) x domain
- (Also, the "all traffic" allows anything that we can select via experiment condition)

Do we still want all these options?

On Thu, Jun 21, 2018 at 9:19 AM Nirmal Jayaram <nirmaljayaram@google.com> wrote:

+ Tim. Sounds good, worth repeating that.

On Thu, Jun 21, 2018 at 9:16 AM, Nitish Korula <nitish@google.com> wrote:

Nirmal, let's also try repeating the fair access competition experiment with the HB vs. DBM analysis that we discussed? Can someone on gTrade (Tim?) set up the experiment to stop 3PE buying? Goody, do you want Andrea or someone on your team to do the analysis? Thanks,
Nitish

On Thu, Jun 21, 2018 at 11:35 AM, Nirmal Jayaram <nirmaljayaram@google.com> wrote:

On Wed, Jun 20, 2018 at 6:31 PM, Jim Giles <jimgiles@google.com> wrote:

Yes, that sounds really good Nirmal - -thanks! Does this lower your costs any because self-competition is reduced?

Not obviously...I'm curious to see stats around how much the self-competition ends up actually raising prices

On Wed, Jun 20, 2018 at 11:19 AM Nirmal Jayaram <nirmaljayaram@google.com> wrote:

On Wed, Jun 20, 2018 at 6:01 AM, Jim Giles <jimgiles@google.com> wrote:

A version of Nirmal's bullet 3 in the long term list is giving up last look for header bidding. This is the one we could do most quickly and I think would have a big impact. +[Martín Pál](#) +[Nitish Korula](#) +[Max Lin](#) We think that we should first adjust Bernanke so that giving up last look does not have as much direct publisher impact -- Martin was going to look in to starting experiments.
Nirmal, have you looked at the diversity of where you are winning for given inventory? Eg are there certain exchanges where you almost never win for say new york times, and if so would it be better to substantially reduce your bidding there?

We are close to launching an [aggressive query throttler for 3PE](#) which will drop about 30-40% of 3PE requests (requests where we won't expect to make any money - so, your example would fall in this bucket, for instance). This way, we would achieve (a) not bidding when we think we almost never win (b) drop the query before ad retrieval, so saves 53k cores in v1 (c) almost no revenue drop, but whatever BC revenue drop will shift to Adx and inventory where we actually win. We can tune this throttler to be more or less aggressive as we go along. Jim, do you think this is a reasonable answer to your question?

On Tue, Jun 19, 2018 at 12:06 PM David Goodman <davidgoodman@google.com> wrote:

Would be a great idea Nirmal. I think that's a fruitful discussion especially in light of a lot of discussions going on

On Tue, Jun 19, 2018 at 11:44 AM Nirmal Jayaram <nirmaljayaram@google.com> wrote:

Self competition is definitely prevalent and bad for the buyer. There are things we have been doing (e.g., poirot, elmo) and are planning on doing (e.g., supply path optimization) as a buyer that helps. This will continue to be an area of active investment for us. E.g.

- Improvements to Poirot to improve bidding in first price auctions, considering cross-exchange dynamics
- Projects to ensure that our bids are constant across calls (to reduce incentive to fish for higher bids)
- Projects focusing multi-call detection and bid lowering while bidding into waterfalls

The long term solution may also really dependent on how we evolve the ecosystem. For instance,

- As Jedi and Yavin grow, DBM and Adwords can start buying directly on Jedi and Yavin, rather than through exchanges, which means no more self competition.
- If more and more exchanges (including Adx possibly) become first price, again there is no incentive to create self-competition since the price is now directly decided by the bid rather than auction pressure.
- If we figure out how to equalize floors (i.e., get the Adx floors down), as a buyer, we will start seeing benefits in terms of buying more through Adx and decreasing incrementality on 3PE.

This sounds like a topic where we could possibly brainstorm sell-side and buy-side strategies to evolve the ecosystem to a state where we don't have to worry about self-competition.

On Tue, Jun 19, 2018 at 8:41 AM, Payam Shodjai <pshodjai@google.com> wrote:

+1, I think it's happening everywhere. I know Nirmal and team have defenses in place, but I want to see what our plan is to improve these defenses.

On Tue, Jun 19, 2018 at 11:24 AM Jonathan Bellack <jbellaack@google.com> wrote:

+Aparna, Jim

The other question is whether this is indicative of what's happening in Header Bidding generally. It stands to reason that if this is happening in EB, it is happening everywhere publishers have multiple exchanges in competition.

-- Jonathan Bellack / jbellaack@google.com

Director, Product Management / Publisher Ad Platforms

On Tue, Jun 19, 2018 at 11:20 AM, Payam Shodjai <pshodjai@google.com> wrote:

+ Nirmal, Tobias, since we were discussing something very similar on another thread

Nirmal, thoughts on how we should go about this type of "self-competition"?

On Tue, Jun 19, 2018 at 11:18 AM David Goodman <davidgoodman@google.com> wrote:

that's the beauty of the EB data set, we know exactly that because we have the same query id!

On Tue, Jun 19, 2018 at 11:00 AM Payam Shodjai <pshodjai@google.com> wrote:

Thanks for sharing. How do we know that the bid to AdX and the bid to EB are for the exact same impression?

On Tue, Jun 19, 2018 at 10:10 AM David Goodman <davidgoodman@google.com> wrote:

<https://docs.google.com/document/d/1lgKq8TvLy2xH1tTuzUx12P3UFZFzkNM0GksdOIw-6fI/edit>

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